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ABSTRACT

A project was conducted which focused on the development of viable, competency-based materials, including a user's guide, for the inservice training and improvement of local level vocational education administrators. The project objectives were accomplished in four phases: the development of a needs assessment instrument which revealed (1) task importance as judged by each of 150 local administrator and superintendent respondents in Virginia and (2) their perceived need for inservice training to develop competencies; the determination of high pricrity areas for inservice training by examining those professional competencies most important and most needed (as indicated by above administrators and superintendents), which resulted in the development of instructional packages in six areas along with a user's guide (see related documents); pilot testing of the instructional packages and guide; and third-party evaluation of the materials and revision based on evaluation. (This report includes a complete description of the project's procedures, results, accomplishments, and conclusions. The appendixes, comprising approximately half the document, contain the following information: needs assessment instrument and accompanying letters, list of forty-six vocational administrator competencies identified as important, rating of instrument items, module descriptions, summary of test results, and the third-party evaluation report.) (SH)

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FINAL REPORT

Project No. 498AH50284
Grant No. G007500446

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NATIONAL INSTITUTE OF EDUCATION

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DEVELOPING COMPETENCY-BASED TRAINING MATERIALS TO MEET THE IN-SERVICE NEEDS OF LOCAL VOCATIONAL ADMINISTRATORS

The project reported herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors or grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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SUMMARY

DEVELOPING COMPETENCY-BASED TRAINING MATERIALS TO MEET THE IN-SERVICE NEEDS OF LOCAL VOCATIONAL EDUCATION ADMINISTRATORS

Goals and Objectives

The primary focus of this project was on the development of viable materials, including a user's guide, for the in-service training and improvement of local level vocational education administrators. More specifically, the project's objectives included:

1. conducting an assessment of the professional needs of local level vocational education administrators in Virginia.

2. developing in-service training materials which are designed to meet the aforementioned needs.

3. developing a training material user's guide which is designed to enhance transportability of the materials.

4. evaluating the materials and guide to obtain feedback regarding their usability and acceptability, and make appropriate revisions based upon this feedback.

Procedures

The project objectives were accomplished in four phases:

The first stage was the development of a needs assessment instrument. A listing of potential competencies (tasks) was drawn from various sources and placed on a form together with two Likert-type scales. The resulting instrument revealed (1) task importance as judged by each local administrator respondent, and (2) the local administrator's perceived need for in-service training to develop competencies. The same items and scales were used to obtain reactions from school superintendents concerning the local vocational administrative personnel under their supervision. 150 local vocational administrators and school superintendents in Virginia participated in the needs assessment process.

The next stage involved determination of high priority areas for in-service training by examining those professional competencies which the group of local administrators and school superintendents indicated as being most important and most needed. Prototype training materials with an accompanying user's guide were developed in areas where no appropriate resources existed. Instructional materials packages were developed in six key areas.

Third, each package developed was scheduled for pilot testing. Student and university faculty members' perceptions of package and guide effectiveness were assessed via self-report instruments. Student mastery of instructional objectives was measured by means of criterion referenced assessments. As appropriate, graduate credit was awarded for successful mastery of packages.

Fourth, each package was subjected to a third-party evaluation to determine its generalizibility and acceptability. Based upon testing and the third-party evaluation, each package and guide underwent revision. Packages and the user's guide were then made available to the general public.

Results and Conclusions

The project staff have produced tested training materials and a user's guide which are designed to meet the in-service needs of local vocational education administrators in Virginia as well as in other states. Accomplishments have included developing a comprehensive needs assessment instrument, conducting as assessment of local administrators' in-service needs, identifying existing resources, and determining new materials needed to meet vocational directors' in-service needs. Six modules and a user's guide were developed, tested, and revised.

I

INTRODUCTION

This study was prompted by the need for quality competency-based materials in vocational administrator education. The paragraphs which follow focus on this need as well as objectives established to help meet this need and research related to competency-based administrator education.

Problem Area

Policy makers and professional educators are currently confronted with many difficult questions and decisions. Examples include: providing students with relevant job entry skills, designing instruction for career development, responding to the complex needs of minority students, and keeping pace with social, economic, and technological developments (Miller, 1972). Likewise, economic and technological changes have tended to place vocational and technical education in a more prominent role in meeting the needs of young people.

This environment has created a need for more competent, progressive leadership in vocational education at all levels. The need for improved local vocational education leadership appears to be most acute.

In response to this increased demand for more vocational and technical education leaders, funding has been provided to establish additional positions for local directors of vocational education, principals of area vocational high schools, and supervisors of vocational education.

While local level leadership personnel are being developed to a limited extent through EPDA funded efforts, the supply of competent persons is not adequate to meet current demands. Consequently, much of the leadership is found among and promoted directly from the teaching ranks. While this may be a source of persons to fill leadership positions, one cannot assume that those promoted "from the ranks" are able to take on their new responsibilities with the same levels of competence as seasoned administrators. Neither can one assume that many incumbents in leadership positions are as proficient as they could be in providing sophisticated leadership to meet the current demands of vocational and technical education. With new requirements placed on superintendents and others who have traditionally been looked upon to provide leadership in vocational and technical education, more responsibility for program planning, administration, supervision, consultation, and advisement has been delegated to local directors, vocational high school principals, and supervisors.

The thrust of this project was to provide persons appointed to these positions with the competencies needed to be both effective and efficient in their new roles and to upgrade the skills of persons who have been in leadership positions for an extended period of time.

Objectives

Meeting the in-service needs of local level vocational education administrators requires more than piecemeal effort. In order to ensure that in-service programs are provided which represent a significant professional improvement for local administrator personnel, high quality training materials must be utilized, materials which have

been developed and tested in a systematic manner. The primary objective of this project was to develop viable materials including a user's guide, for the in-service training and improvement of local level vocational education administrators. More specifically, the project focused on:

1. conducting an assessment of the professional needs of local level vocational education administrators in Virginia.
2. developing in-service training materials designed to meet the aforementioned needs.
3. developing a training material user's guide designed to enhance transportability of the materials.
4. evaluating the materials and guide to obtain feedback regarding their usability and acceptability and make appropriate revisions based upon this feedback.

Related Research

A considerable amount of research has been conducted on the identification of professional education competencies, however, the main focus of these efforts has been in the area of teacher education. The studies provided in the paragraphs which follow are representative of research related to competency-based administrator education. They served as a foundation for the present study in terms of methodology, instrumentation, and the identification of potential competencies.

Stanger (1967) surveyed the attitudes of selected groups of vocational education leaders in order to determine their perceptions of the functions of the county vocational education director in California. These functions were limited to the service responsibilities of the position, exclusive of administrative responsibilities for

improvement of instruction. A list of 73 duties and functions of vocational education directors was used in a data gathering instrument. Highest importance ratings were given to ten functions in the area of administration, seven having to do with the instructional program, and four leading to professional improvement. No item in the areas of housing or equipment-and-supplies received a mean rating of "important." In comparing importance ratings with acceptability ratings, twice as many items were judged to be of top importance as were judged to be satisfactory in actual performance. Some large discrepancies were noted where functions given high importance ratings were rated especially low in quality of performance. Among five such items, three pertained to the instructional program and two were related to professional improvement.

The competencies needed and possessed by vocational education administrators were examined by Meyer (1971). Vocational administrators were selected at random from thirty-three state educational directories to participate in the study. Each state directory was searched for individuals in the particular state that were designated as top-management, middle-management, and supervisory-management. A list of 133 statements was developed from the literature and submitted to a jury for evaluation. Then, a composite list of 116 statements was derived and used as the basis for the questionnaire distributed to vocational administrators. Top management, middle management, and supervisory management ranked the following competencies as those they need most: (1) coordination of vocational education with the total educational program, (2) communicate with

others, (3) future anticipated needs of industry, and (4) stimulate others into action.

The amount of agreement and disagreement existing among directors of occupational education, LEA superintendents, and Illinois Division of Vocational and Technical Education (DVTE) staff regarding the role of occupational education directors was investigated by Bayne (1972). A Q-sort developed for this study consisted of 63 behaviorally stated competencies which had been identified in previous research as essential to the operation and administration of an occupational education program. A high degree of agreement was found between local directors and DVTE staff on ranking of 60 of the 63 items. Local directors and superintendents were in agreement on 54 of the 63 items. Superintendents and the DVTE staff were in agreement on 53 of the 63 items. The establishment of a sound philosophy of occupational education, the determination of curriculum objectives, the selection and use of equipment and facilities, and the evaluation of program and instructional staff are examples of items given a high priority. Administrative duties such as writing proposals, interviewing teacher candidates, working with lay advisory groups were also viewed to be significantly above the mean. Role definition statements which dealt directly with securing on-the-job training stations, interpretation of student occupational interest inventories, and other similar activities were given a low priority rating.

The essential competencies needed by administrators of vocational programs in area vocational centers, comprehensive high schools, and community colleges in the state of Illinois were investigated

by Harrington (1973). A field tested instrument containing a listing of 305 items was completed by 106 vocational administrators. It was found that 247 of the 305 competencies surveyed were judged to be essential. The 247 essential competencies included forty-nine of the fifty-one knowledges, fifty of the sixty-one attitudes, and 148 of the 193 skills included in the instrument. Results of the investigation suggested that among the differences in responses of the vocational education administrators, those representing comprehensive high schools and those representing community colleges were not sufficient to justify designing specific separate curricula to prepare these types of administrators.

The questionnaire used in the Harrington (1973) study served as the base for another Illinois study. A research project was undertaken to develop a competency-based model graduate program for administrators of vocational education (Ramp, 1976). Illinois State University and Southern Illinois University joined to identify administrative competencies and assess how these competencies might be achieved. Twelve superintendents were identified and asked to respond to the same instrument that their local directors had completed in the earlier study by Harrington. The superintendents were asked to evaluate the importance of each listed competency. Of the 305 competencies, 158 were found to be important on both surveys. The comparative results indicated a strong agreement between the local directors and the superintendents to whom they reported. The 158 competencies were then translated into behavioral statements and organized into a taxonomy of administrative competencies under the

major competency areas of program planning and implementation, staff recruitment, personnel development and management, program operation, program management, management of physical facilities, supplies and equipment, and public relations.

The perceptions of vocational directors and high school principals regarding the role of the vocational director were investigated by Loudermilk (1973). Sixty-one role functions were placed on a form together with a Likert-type scale. Responses were received from 121 pairs of vocational directors and high school principals from the same school districts. It was found that the role of the vocational director was understood by both directors and principals, with both groups agreeing on 59 of 61 functions listed.

The roles of local vocational administrators in Ohio were analyzed by Williams (1973) in order to discover implications for the design of vocational leadership development programs. A pilot-tested questionnaire containing a list of 84 professional tasks was administered to all full-time local vocational directors and supervisors in Ohio. Differences were found between the roles of the directors and the supervisors, both with regard to importance placed on the tasks and the frequency with which tasks were performed. The directors were deeply involved in tasks associated with general administration. The supervisors were more involved in those tasks dealing with curriculum and instruction. Both groups were involved to the same extent in school-community relations tasks.

Lynch (1973) studied the perceptions of graduate faculty of vocational education at 18 institutions of higher education regarding

competencies to be possessed by doctoral graduates of comprehensive vocational education who are to assume positions as local administrators, state administrators, or teacher educators of vocational education. Leadership competency clusters used in the study had been identified by participants in a 1969 seminar concerned with graduate vocational education which was held at The Ohio State University. Results of the investigation indicated certain clusters to be significantly more important for doctoral graduates of comprehensive vocational education who are to assume positions as local administrators as compared to those who are to assume positions as teacher educators of vocational education or as state administrators of vocational education. These particular clusters were the evaluation competency cluster, the program facilities planning cluster, and the student affairs competency cluster.

Cooper (1974) examined congruence in the role of principals of vocational technical centers in Virginia as perceived by principals, superintendents, and teachers. Forty-eight items believed to be the functions of principals of vocational-technical centers were included in an instrument which utilized a Likert-type scale to measure perceptions of the respondents. Means and standard deviations were obtained on each item for each of the three subgroups. It was concluded that principals and their superintendents, but not the teachers, have congruent perceptions of the role of principals of vocational-technical centers in Virginia, and that the 48 items in the research instrument constituted definite functions of principals of vocational-technical centers in Virginia. Items

from this research instrument provided the basis for some instrument items developed for use in the needs assessment portion of this study.

The research reported indicates that a broad array of competencies have been identified which can be associated with local vocational education administration. There is some consistency among results of the various studies as to which competencies are most important to successful performance of the job, but no real consensus emerges as to which would provide a sound basis for the development of curriculum materials to upgrade competencies of vocational administrators. Further, previous studies have not focused on priorities for in-service education of local vocational administrators as perceived by the administrators themselves and their superintendents. Finally, it was viewed as essential to the development of meaningful curriculum materials that input be obtained which relate to the needs of local vocational administrators in Virginia and which accurately reflect current demands made of local vocational administrators. Consequently, a survey of competencies needed by local vocational administrators in Virginia was viewed as essential to this project.

II

PROCEDURE

This section details the steps taken in conducting the project. Initially consideration is given to the general strategy which was utilized. This is followed by discussions of instrument development, resource materials identification, new materials determination, prototype materials development, materials testing, third party evaluation, and materials revision.

General Strategy

In order to meet specified objectives in a timely manner, the project was divided into several product phases. These phases, which reflect the systematic development of instructional materials (Baker and Schutz, 1972), included: developing a needs assessment instrument, conducting the needs assessment, identifying existing resources, determining new materials needed to meet in-service needs, developing prototype training materials and a user's guide, testing materials and guide, subjecting materials and guides to a third-party evaluation, and making necessary revisions to the materials and guide. The product development process is presented graphically in Figure 1. Each of the steps in this process is detailed in subsections which follow. A project management plan is also provided (Figure 2). This plan details key points at which the product development process was monitored to determine progress made toward attainment of project objectives.

Figure 1

PRODUCT DEVELOPMENT PROCESS

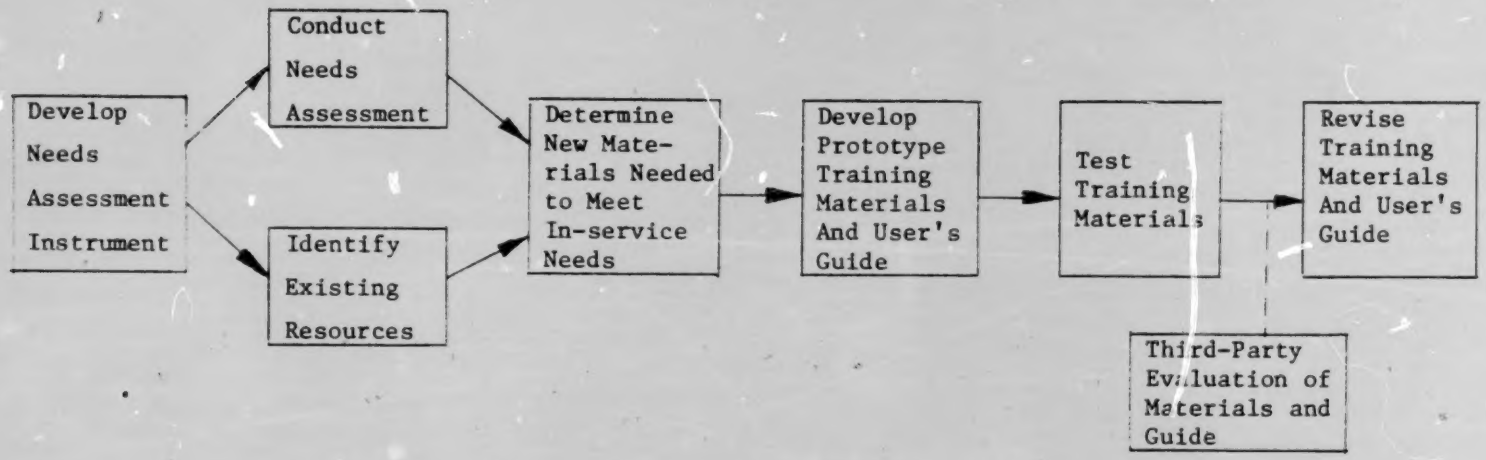
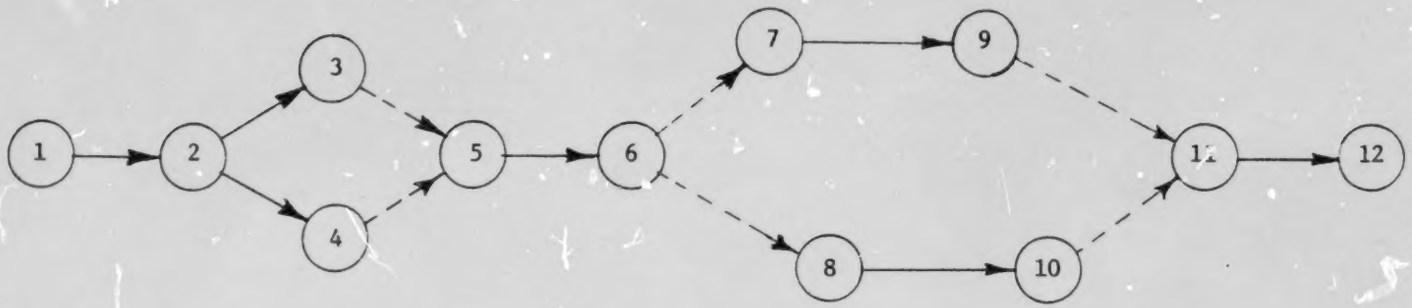

Develop Needs Assessment Instrument
Conduct Needs Assessment
Identify Existing Resources
Determine New Materials Needed to Meet In-service Needs
Develop Prototype Training Materials And User's Guide
Test Training Materials
Revise Training Materials And User's Guide
Third-Party Evaluation of Materials and Guide

FIGURE 2

PROJECT MANAGEMENT PLAN



1. Project Start (S*)
2. Complete Instrument Development (S+2 mo.)
3. Complete Needs Assessment (S+4 mo.)
4. Complete Resource Identification (S+4 mo.)
5. Start New Materials Determination (S+4 mo.)
6. Complete New Materials Determination (S+5 mo.)
7. Start Materials and Guide Development (S+5 mo.)
8. Start Testing (S+7 mo.)
9. Complete Materials and Guide Development (S+12 mo.)
10. Complete Testing (S+15 mo.)
11. Start Third-Party Evaluation (S+16 mo.)
12. Complete Third-Party Evaluation (S+16 mo.)
13. Complete Materials and Guide Revision, Project End (S+18 mo.)

*S represents project start date

Instrument Development

Initial efforts of the project staff were directed toward the development of an appropriate needs assessment instrument. This aspect of the project was extremely critical since needs assessment data served as a foundation for training materials development. Instrument content was obtained from a variety of sources. Vocational education administrators' job descriptions were examined. Discussions were held with state Division of Vocational Education staff as well as the Executive Director of the Virginia Advisory Council on Vocational Education. Selected school superintendents and vocational administrators were also interviewed. Finally, relevant research studies were examined. Drawn from these various sources was a listing of potential competencies (tasks) for local vocational education administrators. Each task was placed on a form together with two Likert-type scales. The scales were used in assessing (1) task importance as judged by each local administrator, and (2) the local administrator's perceived need for in-service training to improve his/her ability to perform tasks. The same tasks and scales were used to obtain reactions from school superintendents; however, wording was changed so that superintendents would respond to (1) task importance to vocational administrators and (2) vocational administrator in-service needs. Additionally, an information form was used to gather demographic data about the vocational administrator group. Data obtained was used to provide background profiles of persons involved in the study. After the instrument was developed in draft form, it was reviewed by several local vocational education

administrators and the State Director of Vocational Education. Information obtained from the review dealing with directions, item clarity, and instrument acceptability served as a basis for instrument refinement. The final draft of the needs assessment instrument which contains eighty-seven task items may be found in Appendix A.

Needs Assessment

The needs assessment instrument was distributed by mail to local vocational administrators and school superintendents throughout Virginia. 198 persons were asked to participate in the needs assessment. In order to increase the likelihood of instrument completion, a letter accompanied each form which urged participation and indicated support from the State Department of Education. Copies of letters sent to local vocational administrators and superintendents are also provided in Appendix A. To further enhance instrument completion, nonrespondents were contacted by telephone and encouraged to complete the instrument. A specific breakdown of instrument distribution and returns is provided in Table 1.

TABLE 1

NEEDS ASSESSMENT INSTRUMENT DISTRIBUTION AND RETURNS

Distribution		Usable Returns			
Superintendents n	Vocational Administrators n	Superintendents n	%	Vocational Administrators n	%
83	115	57	68.67	93	80.87

Instruments were scored and the results placed on data cards. Statistical analyses were performed via computer. Relationships among superintendents' and local directors' responses were analyzed by computing means and standard deviations for each item. Each item was examined to determine if it was rated 2.75 or above by both groups on both scales (importance and in-service need). This standard served as the operational definition of competencies needed by incumbent vocational directors. If a mean was higher than the established cutoff point, the standard deviation was examined as the deciding factor on whether or not to include that item as a priority. Twenty-nine items either met or exceeded the established standard. These items or priority competencies were ranked based upon composite need with the result being displayed in Table 2.

In addition to serving as a means of identifying vocational administrators' in-service needs, the needs assessment also provided information about what competencies are associated with administering vocational education programs. These competencies, which are provided in Appendix B, were deemed important by both vocational administrators and superintendents; however, they were below the 2.75 cut-off in terms of in-service need. By combining competencies in Table 2 and Appendix B, the result is a framework for a comprehensive competency-based administrator education program. In the case of offerings in Virginia, the pre-service component might include those competencies rated most important, whereas, the in-service component for incumbent vocational administrators

TABLE 2

COMPETENCIES NEEDED BY INCUMBENT VOCATIONAL ADMINISTRATORS

Rank No.	Grouped Mean	Item No.	Item
1	3.287	5.	Determine the best curriculum design and organization to achieve instructional goals.
2	3.233	54.	Develop annual and long-range plans which include pertinent objectives.
3	3.107	81.	Implement instruction which focuses directly on developing those tasks, skills, attitudes, values, and appreciations that are deemed critical for successful employment (competency-based instruction).
4	3.067	46.	Plan special education programs for disadvantaged and handicapped students.
5	3.047	19.	Help formulate goals for vocational education in the county and/or city district school.
6	3.020 (Tied)	10.	Organize workshops and other in-service activities for teachers.
6	3.020 (Tied)	11.	Conduct workshops and other in-service activities for teachers.
6	3.020 (Tied)	20.	Develop means for continuous evaluation of instructional programs.
7	3.012	58.	Motivate personnel to their optimum growth potential.
8	2.967	30.	Help determine objectives of specific vocational programs.
9	2.960	74.	Provide for teacher participation in the accountability process.
10	2.927	59.	Articulate the philosophy of vocational education with business and industry representatives.
11	2.913 (Tied)	1.	Help formulate policies upon which the vocational programs operate.
11	2.913 (Tied)	42.	Prepare fiscal budgets.

TABLE 2 (Continued)

Rank No.	Grouped Mean	Item No.	Item
12	2.893	63.	Develop and maintain a laboratory safety program based on legal requirements and safety standards.
13	2.887	69.	Maintain overall responsibility for program evaluation.
14	2.880 (Tied)	7.	Evaluate teacher performance.
14	2.880 (Tied)	12.	Provide assistance in writing proposals for state and federal funding of projects and programs.
15	2.873 (Tied)	6.	Promote coordination and balance between vocational and general education programs.
15	2.873 (Tied)	45.	Help plan new instructional facilities.
16	2.860	67.	Keep teachers informed about legal restrictions on training students (e.g., child labor laws).
17	2.853	18.	Interpret financial and special needs of vocational education to the public.
18	2.840 (Tied)	38.	Organize the staff for effective counseling and guidance.
18	2.840 (Tied)	79.	Unite and stimulate subordinates and superiors toward achievement of vocational education goals.
19	2.833	87.	Utilize manpower projections and economic development data in the program planning and revision process.
20	2.807 (Tied)	21.	Involve lay groups in program planning and evaluation.
20	2.807 (Tied)	65.	Provide for instructional and personal needs of special students.
20	2.807 (Tied)	66.	Assist teachers in adopting innovations.
21	2.793	31.	Involve teachers in the decision-making process.

might include those competencies identified as being most important and most needed. A listing of instrument items with mean scores above 2.75 is provided in Appendix C.

Resource Materials Identification

Concurrent with needs assessment activities, the project staff conducted searches to identify existing resources which could be used to meet in-service needs of local administrators. Computerized searches of Research in Education, Current Index of Journals in Education, AIM and ARM were also conducted via the ERIC Information Center. Manual searches were also conducted. These consisted of examining publishers' catalogs and similar areas which were not accessible by computer. Resources that had potential to help meet vocational administrators' in-service needs were obtained and filed for future reference.

New Materials Determination

Results of the needs assessment served as a basis for determining what in-service training local administrators actually needed. Professional tasks which the groups of local administrators and school superintendents indicated as being most important and most needed constituted the high priority areas for in-service training. After this determination was made, identified resources were reviewed to ascertain which of them could be used to develop which competencies (important tasks). This procedure insured that project staff would utilize existing resources as much as possible and not duplicate work which has already been done elsewhere. Seven of the ten highest priority competencies were selected for

development into six modules (two competencies were dealt with in one of the modules). The decision to focus on these seven competencies was based upon current or projected availability of materials from other sources. The information provided in Table 3 shows how competencies identified through this project, together with appropriate materials, might be utilized to form a meaningful CBAE in-service program. Note that materials available from a variety of sources have been included. This supports the contention that existing efforts were not duplicated by the project staff.

Materials Development

Although there are numerous materials that might possibly be developed, time and dollar constraints dictated that only highest priority areas be considered when training materials were being developed. It was, therefore, decided that instructional materials be developed in six key areas. As indicated earlier, these were areas deemed most important to and most needed by practicing vocational education administrators at the local level.

The six modules that were determined as being most meaningful to develop included:

1. Motivating Vocational Education Personnel to Their Optimum Growth Potential (58)
2. Implementing Competency-Based Instruction in Vocational Education (81)
3. Planning Vocational Education Programs for the Disadvantaged and Handicapped (46)
4. Formulating Goals and Objectives for Vocational Education Programs (19)

TABLE 3

EXAMPLE OF HOW MODULES MIGHT BE SELECTED
FOR A CBAE IN-SERVICE PROGRAM

Competency	Module Title	Module Source
5	Preparing for Curricular Change	VCS Project Washington State University
54	Preparing Local Plans for Administering Vocational Education	CBAE Project VPI & SU
81	Implementing Competency-Based Instruction in Vocational Education	CBAE Project VPI & SU
46	Planning Vocational Education Programs for the Disadvantaged and Handicapped	CBAE Project VPI & SU
19	Formulating Goals and Objectives for Vocational Education Programs	CBAE Project VPI & SU
10,11	Organizing and Conducting Staff Development Activities for Vocational Teachers	CBAE Project VPI & SU
20	Preparing for Curriculum Evaluation	VCS Project Washington State University
58	Motivating Vocational Education Personnel to Their Optimum Growth Potential	CBAE Project VPI & SU
30	Developing Curriculum: Goals, Objectives, and Instructional Plans	VCS Project Washington State University
74	Evaluate Your Vocational Program	PBTE Project Ohio State University
59	Establish and Maintain a Professional Philosophy of Education	PBTE Project Ohio State University
1	Help Formulate Policies Upon Which Vocational Programs Operate	Unavailable--develop locally
42	Prepare Fiscal Budgets Fiscal Management of Vocational Education Programs	VECS Project American Institute for Research
63	Provide for the Safety Needs of Vocational Students	PBTE Project Ohio State University

5. Organizing and Conducting Staff Development Activities for Vocational Teachers (10, 11)

6. Preparing Local Plans for Administering Vocational Education (54)

Competencies that correspond with the modules are provided in parentheses. Appendix D provides more detailed information about each of the modules, including terminal and enabling objectives.

There are a variety of formats for modules, however, any useful format must move the learner logically and sequentially through a series of experiences that will enable him or her to meet specified behavioral objectives. The module format used for the competency-based administrator education materials paralleled that described by Finch, Hamilton, and Andreyka (1974) and consisted of several components which are presented in the paragraphs which follow:

Cover Page
Introduction
Module Structure and Use
    Organization
    Objectives
    Procedure
    Resources
    Terminology
Learning Experiences
    Enabling Objective
    Information Sheet
    Self-Check
    Model Answers
Module Assessment
Performance Assessment Sheet

The purpose of the cover page is to communicate and to attract the attention of the learner. This is accomplished through the use of a title which communicates active learning and represents a perceived area of need of vocational education administrators for in-service training. A second part of the cover page is a table of

contents which serves as an advance organizer for the total module. It adds to the learner's ability to quickly locate specific parts of the module.

The introduction follows the cover page and is intended to explain why the material presented is important for the learner to know. It creates interest and stimulates thinking in a certain direction. The introduction encourages the reader to set goals and helps establish basic assumptions about the content covered in the module.

A third component of the module format is that of module structure and use. This component includes several subcomponents beginning with a section on the organization of the module. The next section covers the performance objectives which specify learner outcomes, identify the conditions under which the performance should occur, and establish assessment standards. Both the terminal and several enabling objectives are included in each module. Enabling objectives are designed to help the learner achieve the terminal objective and are placed as headings for the learning experience sections. Other sections under Module Structure and Use include the procedures to follow, resources to use, and specific terminology.

The learning experiences provide activities for the learner and assists him or her to accomplish the performance objectives. Each learning experience is presented on blue paper for easy access and is followed by an information sheet which develops content, self-check and model answer sections to serve as feedback devices

for the learner. The final learning experience in each module is designed to allow application of learning in an applied setting.

Each module concludes with two components presented on yellow paper and include the module assessment and administrator performance assessment forms. These sections test the exit competence of the learner and can be used to indicate certain competency voids.

An important feature of the module format is the opportunity provided for exemption testing. Students may demonstrate competence of an enabling objective by completing the appropriate self-check section(s), then may proceed on to the next learning experience or may elect to totally skip all of the module by successfully completing the final module assessment form. This exemption testing feature helps the learner make decisions, allows the learner to self-pace, and serves as a learner diagnostic tool.

Concurrent with instructional materials (package) development, project staff designed a user's guide. This guide provided detailed descriptions of the ways packages are to be administered to student groups as well as individual students. It focused on the enhancement of product transportability so that packages may be used for in-service training across the nation as well as in Virginia. Various components of the user's guide include an introduction to competency-based education, the module development process, module format and descriptions, using competency-based materials, student orientation to competency-based administrator education, and a project summary.

Materials Testing

As each package was developed and reviewed, it was scheduled for testing with students. The purpose of this testing was to determine to what extent:

1. students mastered package objectives.
2. students perceived each package as being an effective teaching/learning device.
3. university faculty presenting each package perceived it to be an effective teaching/learning device.

Each package was scheduled to be tested in at least one instructional setting with sample sizes ranging from seven to 23 students. Detailed testing procedures suggested by Finch, Hamilton, and Andreyka (1974) were utilized as much as possible during the testing process. Students' and faculty members' perceptions of package effectiveness were assessed via self-report instruments developed by project staff. Student mastery of instructional objectives were assessed by means of criterion-referenced assessments included in each package. Packages were tested incrementally. Thus development and testing proceeded concurrently as soon as materials had been developed in prototype form. As appropriate, graduate credit was awarded for successful mastery of packages.

The evaluation summary in Table 4 provides information about the sizes of groups that used the modules as well as the quarters in which the modules were tested. Due to budgeting and time constraints, only limited testing of the materials was undertaken. It is anticipated, however, that additional module testing will take place as the materials are integrated into VPI & SU graduate programs for vocational education administration.

TABLE 4

EVALUATION SUMMARY

Questions Related to Testing	Modules Developed	Groups Tested	Test Results*
1. Do students master module objectives?	Motivating Vocational Education Personnel to Their Optimum Growth Potential	9 students, Spring Quarter, 1976	See Appendix D
2. Do students perceive each module to be an effective teaching/ learning device?	Implementing Competency-Based Instruction in Vocational Education	8 students, Spring Quarter, 1976 17 students, Summer Quarter, 1976	See Appendix D
	Planning Vocational Education Programs for the Disadvantaged and Handicapped	9 students, Fall Quarter, 1976	See Appendix D
3. Do faculty presenting each module perceive it to be an effective teaching/learning device?	Formulating Goals and Objectives for Vocational Education Programs	5 students, Summer Quarter, 1976 6 students, Fall Quarter, 1976	See Appendix D
	Organizing and Conducting Staff Development Activities for Vocational Teachers	7 students, Fall Quarter, 1976	See Appendix D
	Preparing Local Plans for Administering Vocational Education	7 students, Fall Quarter, 1976	See Appendix D

*All students who used the modules mastered module objectives.

Summaries of module test results may be found in Appendix E. For the six modules information is reported about the types of students who were involved in the testing as well as the mean number of hours spent completing each module and mean responses to each of twenty-five evaluative questions.

In terms of faculty members' perceptions, the modules appeared to be effective teaching/learning devices. All faculty rated the modules as "useful for the students' professional development" and rated the overall module quality as "good" to "very good." All participating faculty members except one felt that "proceeding through the module is a practical and realistic task." Concerns expressed by faculty members included the time it took students to complete modules and the limited prior exposure students had to modularized instruction. Comments made about the best qualities of the modules included content being up to date, inclusion of enabling activities, and the specific criteria for evaluating student progress.

Third Party Evaluation

In order to ensure that materials were acceptable, the packages and user's guide were subjected to a third party evaluation. This evaluation was conducted after the testing had been completed. The third party evaluation team consisted of Dr. Bob E. Childers, Executive Secretary, Commission on Occupational Education Institutions, Southern Association of Colleges and Schools and Professor Ralph C. Wenrich, University of Michigan. The evaluation team was initially mailed a description of the project as well as

several modules and related materials. After each team member had an opportunity to review the materials, a meeting was arranged in Blacksburg to discuss the project and provide access to additional project information. During the team's on-site visit module test data was presented and discussed. All modules and the user's guide were made available for review and criticism. Discussions were held to verify the activities that had been performed by project staff. At the conclusion of the on-site visit, a verbal summary of evaluation results was presented by the team members. This was followed several weeks later by a formal written report which is contained in Appendix F.

Essentially, the third party evaluators stated that the project "was well conceived and carefully executed." The project's goals and objectives "were clearly stated and delineated in four achievable phases." It was noted that "there was not enough funding or time provided for an effective follow-up and feedback to validate the materials developed." The evaluators did concur that "the materials as produced are usable." Recommendations included a need for further refinement of the six modules and user's guide.

Materials Revision

Based on testing and the third-party evaluation, packages and the user's guide underwent revision. Revisions dealt specifically with deficiencies noted by users and the evaluation team.

Ratings and comments made by students who used the modules were reviewed to determine what changes might be made within the project's time limitations. Concurrently, comments made by the

third party evaluators were examined to determine what refinements would be most beneficial. In addition to revisions associated with content flow, clarity, and general editing, the following questions were posed to each person who revised a module:

1. Is the module transportable (Material in the module is general in nature and specific reference to the state of Virginia has been kept to a minimum)?

2. Has the reading ease of the module been considered (sentences are average in length and understandability)?

3. Is each learning experience structured so that an off-campus student can complete it independently without the assistance of a resource person(s)?

4. Does each learning experience include appropriate references such as books, articles, and AV materials?

After materials had been revised and edited a final time, each item was reproduced and made available to interested parties.

III

RESULTS AND ACCOMPLISHMENTS

The output of this project consisted of training materials and a user's guide which are designed to meet the in-service needs of local vocational education administrators in Virginia as well as other states. Since each package focuses on specific high priority needs of local administrators in Virginia, many of the same needs should be relevant to administrators across the nation. Because of the competency-based nature of these materials, administrator needs can quite easily be aligned with package objectives. Package content together with the user's guide should enable university faculty members to provide high quality in-service training to local vocational education administrators and also allow student mastery of instruction to be assessed in an objective, systematic manner.

Accomplishments associated with the project included developing a comprehensive needs assessment instrument, conducting an assessment of local vocational administrators' in-service needs, identifying existing resources in the area of vocational administrator education, and determining new materials needed to meet vocational directors' in-service needs. A total of six modules have been developed and pilot tested which focus on key areas of in-service need. Finally, a user's guide has been developed to enhance the application of competency-based administrator education materials in a variety of settings.

IV

CONCLUSIONS

Based on the results and accomplishments which have been cited, it may be concluded that comprehensive curriculum development efforts can take place during a relatively short time frame. Within an eighteen month period, content was identified, conceptualized, packaged, pilot tested, and refined. While it is recognized that available time and dollars limited the number of materials which could be developed as well as the amount of testing that could be done, the work which was accomplished represents much of the standard curriculum materials development cycle.

A second conclusion has to do with the further testing of materials. Obviously, the limited testing done as part of this project represents only the beginning of testing that could be conducted. A need exists to examine how materials can be utilized in other locales and with various types of students. Exploratory efforts need to be carried out with comprehensive administrator internship and externship programs that are becoming more common around the country. The limits of module use can only be determined through extensive testing and use. While the present project has begun to identify these limits, it will be the responsibility of module users to further examine the modules as they are being used and, hopefully, report their successes and failures.

A final conclusion may be linked to the systems in which the materials are eventually used. Competency-based education can be

of most benefit to students if instruction is individualized. Unfortunately, most pre-service and in-service programs for vocational administrators are not set up this way. While it is apparent that the materials developed in this project have the potential to greatly aid vocational administrators in their professional development, this potential may never be realized unless institutions can establish meaningful delivery systems to complement the modular instruction.

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APPENDIX A

NEEDS ASSESSMENT INSTRUMENT AND ACCOMPANYING LETTERS

APPENDIX A

VOCATIONAL ADMINISTRATOR NEEDS ASSESSMENT

Part I

Instructions: On the pages which follow, you will find a list of items or statements which may relate to the administration of local vocational programs. We are interested in finding out how you feel about these items in relation to your job as a vocational administrator and your personal inservice training needs.

For each item you will find two sets of scales. The set of scales at the left is used to judge the importance of the item to you in your job as a vocational administrator while the set of scales at the right is used to determine how you perceive your own need for inservice training that will improve your ability to perform the item.

You are to circle two ratings (one rating for each set of scales beside every item). Please circle the appropriate ratings for every item. Do not leave out any item.

	Importance to you in your job				Your need for inservice training			
	Very Unimportant	Fairly Unimportant	Fairly Important	Very Important	No Need	Little Need	Some Need	Great Need
1. Help formulate policies upon which the vocational programs operate.	1	2	3	4	1	2	3	4
2. Prepare administrative bulletins directed to the staff.	1	2	3	4	1	2	3	4
3. Interpret vocational programs to parents and others in the community.	1	2	3	4	1	2	3	4
4. Hold individual parent conferences.	1	2	3	4	1	2	3	4
5. Determine the best curriculum design and organization to achieve instructional goals.	1	2	3	4	1	2	3	4
6. Promote coordination and balance between vocational and general education programs.	1	2	3	4	1	2	3	4
7. Evaluate teacher performance.	1	2	3	4	1	2	3	4
8. Evaluate and recommend teachers for promotion, retention, and termination.	1	2	3	4	1	2	3	4

	Very Unimportant	Fairly Unimportant	Fairly Important	Very Important	No Need	Little Need	Some Need	Great Need
9. Attend professional meetings.	1	2	3	4	1	2	3	4
10. Organize workshops and other inservice activities for teachers.	1	2	3	4	1	2	3	4
11. Conduct workshops and other inservice activities for teachers.	1	2	3	4	1	2	3	4
12. Provide assistance in writing proposals for state and federal funding of projects and programs.	1	2	3	4	1	2	3	4
13. Meet with student groups.	1	2	3	4	1	2	3	4
14. Manage the school office.	1	2	3	4	1	2	3	4
15. Work with county and/or city agencies in developing and operating vocational education programs.	1	2	3	4	1	2	3	4
16. Work with state agencies in the development and operation of vocational education programs.	1	2	3	4	1	2	3	4
17. Work with federal agencies in the development and operation of vocational education programs.	1	2	3	4	1	2	3	4
18. Interpret financial and special needs of vocational education to the public.	1	2	3	4	1	2	3	4
19. Help formulate goals for vocational education in the county and/or city district school.	1	2	3	4	1	2	3	4
20. Develop means for continuous evaluation of instructional programs.	1	2	3	4	1	2	3	4
21. Involve lay groups in program planning and evaluation.	1	2	3	4	1	2	3	4

22.	Work cooperatively with supervisors and other school division level personnel to improve the instructional program.	1 2 3 4	1 2 3 4
23.	Interpret vocational education legislation to other school administrators.	1 2 3 4	1 2 3 4
24.	Converse informally with subordinates such as at lunch time or in the faculty lounge.	1 2 3 4	1 2 3 4
25.	Attend school functions, such as assemblies, plays and athletic contests.	1 2 3 4	1 2 3 4
26.	Determine staff assignments.	1 2 3 4	1 2 3 4
27.	Prepare reports for the higher administration.	1 2 3 4	1 2 3 4
28.	Provide communication channels for the sharing of ideas and information among teachers.	1 2 3 4	1 2 3 4
29.	Assist PTA and other parent groups.	1 2 3 4	1 2 3 4
30.	Help determine objectives of specific vocational programs.	1 2 3 4	1 2 3 4
31.	Involve teachers in the decision-making process.	1 2 3 4	1 2 3 4
32.	Conduct classroom and laboratory observations of teachers.	1 2 3 4	1 2 3 4
33.	Interview teacher candidates.	1 2 3 4	1 2 3 4
34.	Recommend persons for teaching positions.	1 2 3 4	1 2 3 4
35.	Deal with disagreements among teachers.	1 2 3 4	1 2 3 4
36.	Handle teacher disciplinary cases.	1 2 3 4	1 2 3 4
37.	Handle student disciplinary cases.	1 2 3 4	1 2 3 4
38.	Organize the staff for effective counseling and guidance.	1 2 3 4	1 2 3 4
39.	Cooperate with community organizations and agencies.	1 2 3 4	1 2 3 4

	Very Unimportant	Fairly Unimportant	Fairly Important	Very Important	No Need	Little Need	Some Need	Great Need
40. Deal with disagreements between teachers and parents.	1	2	3	4	1	2	3	4
41. Deal with disagreements between teachers and pupils.	1	2	3	4	1	2	3	4
42. Prepare fiscal budgets.	1	2	3	4	1	2	3	4
43. Effect fiscal operating controls over school expenditures.	1	2	3	4	1	2	3	4
44. Locate community resources which will aid in program improvements.	1	2	3	4	1	2	3	4
45. Help plan new instructional facilities.	1	2	3	4	1	2	3	4
46. Plan special education programs for disadvantaged and handicapped students.	1	2	3	4	1	2	3	4
47. Prepare communication releases for mass media.	1	2	3	4	1	2	3	4
48. Prepare promotional materials to explain vocational education to the public.	1	2	3	4	1	2	3	4
49. Analyze student achievement patterns.	1	2	3	4	1	2	3	4
50. Determine equipment needed to carry on effective vocational programs.	1	2	3	4	1	2	3	4
51. Determine operating supplies needed to carry on effective vocational programs.	1	2	3	4	1	2	3	4
52. Deal with disagreements among pupils.	1	2	3	4	1	2	3	4
53. Check for possible hazards to pupil safety.	1	2	3	4	1	2	3	4
54. Develop annual and long-range plans which include pertinent objectives.	1	2	3	4	1	2	3	4

55.	Promote vocational education financing through participation at school board meetings.	1	2	3	4	1	2	3	4
56.	Report vocational education concerns to school board members.	1	2	3	4	1	2	3	4
57.	Work closely with the school board to maintain high quality vocational programs.	1	2	3	4	1	2	3	4
58.	Motivate personnel to their optimum growth potential.	1	2	3	4	1	2	3	4
59.	Articulate the philosophy of vocational education with business and industry representatives.	1	2	3	4	1	2	3	4
60.	Defend appropriations for vocational education from a philosophical base.	1	2	3	4	1	2	3	4
61.	Establish and maintain rapport with faculty from various vocational service areas (i.e., Agriculture, Business, Home Economics, Health, Distributive, Trade and Industrial Education, etc.)	1	2	3	4	1	2	3	4
62.	Critically examine points of view opposing your professional interests.	1	2	3	4	1	2	3	4
63.	Develop and maintain a laboratory safety program based on legal requirements and safety standards.	1	2	3	4	1	2	3	4
64.	Assume legal responsibility for planning and maintaining safe facilities.	1	2	3	4	1	2	3	4
65.	Provide for instructional and personal needs of special students.	1	2	3	4	1	2	3	4
66.	Assist teachers in adopting innovations.	1	2	3	4	1	2	3	4
67.	Keep teachers informed about legal restrictions on training students (e.g., child labor laws).	1	2	3	4	1	2	3	4
68.	Articulate program offerings between vocational and feeder schools.	1	2	3	4	1	2	3	4
69.	Maintain overall responsibility for program evaluation.	1	2	3	4	1	2	3	4
70.	Formulate grievance procedures for teachers to follow.	1	2	3	4	1	2	3	4

	Very Unimportant	Fairly Unimportant	Fairly Important	Very Important	No Need	Little Need	Some Need	Great Need
71. Provide vocational education opportunities for students from all backgrounds.	1	2	3	4	1	2	3	4
72. Synthesize current research information from sessions at professional conferences.	1	2	3	4	1	2	3	4
73. Articulate secondary and post-secondary vocational education program objectives.	1	2	3	4	1	2	3	4
74. Provide for teacher participation in the accountability process.	1	2	3	4	1	2	3	4
75. Participate in community civic and volunteer activities.	1	2	3	4	1	2	3	4
76. Assist teacher-coordinators in establishing and improving cooperative vocational education.	1	2	3	4	1	2	3	4
77. Represent teachers' interests to superiors within the school/district/county.	1	2	3	4	1	2	3	4
78. Provide for mutual attainment of staff and organizational goals.	1	2	3	4	1	2	3	4
79. Unite and stimulate subordinates and superiors toward achievement of vocational education goals.	1	2	3	4	1	2	3	4
80. Establish and maintain advisory committees.	1	2	3	4	1	2	3	4
81. Implement instruction which focuses directly on developing those tasks, skills, attitudes, values, and appreciations that are deemed critical for successful employment (competency-based instruction).	1	2	3	4	1	2	3	4

82.	Coordinate adult vocational education programs.	1 2 3 4	1 2 3 4
83.	Articulate vocational program offerings with those of CETA, OIC, and other training agencies.	1 2 3 4	1 2 3 4
84.	Analyze and assign priorities to program expenditures.	1 2 3 4	1 2 3 4
85.	Coordinate planning and construction of new vocational facilities.	1 2 3 4	1 2 3 4
86.	Coordinate the modification and renovation of existing facilities.	1 2 3 4	1 2 3 4
87.	Utilize manpower projections and economic development data in the program planning and revision process.	1 2 3 4	1 2 3 4

You may feel there are omissions in this list of items relating to the administration of local vocational programs. If so, please add them and rate each in the space provided below.

88.	_____ _____	1 2 3 4	1 2 3 4
89.	_____ _____	1 2 3 4	1 2 3 4

Part II

Instructions: Read each item carefully and print your responses in the blanks provided, or check where appropriate.

C 1 B 2 A 3 E 4

5 6 7 8

1 9

A. Approximate number of vocational student enrollees in grades 10-12 that are under your jurisdiction. _____ enrollees (10 11 12 13)

B. Number of full-time vocational teachers under your jurisdiction. _____ teachers (14 15 16 17)

C. Number of vocational programs under your jurisdiction. _____ programs (18 19)

D. Which of the following best represents your responsibility for vocational education? (Check one.) (20)

___1. City-wide	___4. Comprehensive high school-wide
___2. County-wide	___5. Multi-county-wide
___3. Vocational-Technical school-wide	___6. Joint vocational center

E. State your present job title._____

F. What percentage of your time is allotted to the administration of vocational and technical education? _____ % (21 22 23)

G. Number of years experience you have had administering vocational and technical education programs. _____ years (24 25)

H. Total years of full-time college work taken. _____ years (26)

I. Years of public school teaching experience.

1. Number of years teaching vocational subjects (e.g., home economics, agriculture, business, industrial education, etc.) _____ years (27 28)

2. Number of years teaching public school non-vocational subjects (e.g., math, English, science, etc.) _____ years (29 30)

3. Total number of years of teaching experience. _____ years (31 32)

Do not write in this column - reserved for keypunching.

Thank you for your assistance!

COLLEGE OF EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL-TECHNICAL EDUCATION

October 17, 1975

Dear Vocational Administrator:

The Division of Vocational and Technical Education at Virginia Tech is currently engaged in an eighteen month project titled "Developing Competency-Based Training Materials to Meet the Inservice Needs of Local Vocational Education Administrators." This project is funded through the U.S. Office of Education with its purpose being to identify professional needs of local vocational administrators and develop inservice training materials which will assist in meeting these needs.

In order to insure that materials are developed which are most meaningful to you, we need to obtain input with regard to your personal professional needs. We sincerely request your cooperation in completing the enclosed forms. The actual completion should take very little time and the information provided will be of most value to you and others who serve as vocational directors across the Commonwealth. We have discussed this project with Mr. George S. Orr, Jr., State Director of Vocational Education, and he is fully supportive of our efforts to conduct this survey and develop inservice materials.

Please complete the forms and return them in the stamped, addressed envelope within the next two weeks. All information you provide will be coded and treated confidentially. If you desire a summary of the survey results, please place your name and address on this letter and send it to the above address in a separate envelope.

Thank you for your consideration of our request.

Sincerely,

Curtis R Finch

Curtis R. Finch
Project Director and Chairman
General Vocational & Technical Education

dmb

Enclosure

cc: Dewey A. Adams

COLLEGE OF EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL-TECHNICAL EDUCATION

October 17, 1975

Dear Superintendent:

The Division of Vocational and Technical Education at Virginia Tech is currently engaged in an eighteen month project titled "Developing Competency-Based Training Materials to Meet the Inservice Needs of Local Vocational Education Administrators." This project is funded through the U.S. Office of Education and has the full support of the Division of Vocational Education in Richmond. The purpose of this project is to identify professional needs of local vocational administrators and develop inservice training materials which will assist in meeting these needs.

In order to insure that materials developed are of the most value to you and to the vocational administrators who work with you, we need to obtain information regarding your perceptions of local vocational administrators' professional needs. We sincerely request your cooperation in completing the enclosed form. The actual completion should take very little time. Please do not share this form with your vocational administrators, since they have been sent similar forms to complete.

Please complete the form and return it in the stamped, addressed envelope within the next two weeks. All information you provide will be coded and treated confidentially. If you desire a summary of the survey results, please place your name and address on this letter and send it to the above address in a separate envelope.

Thank you for your consideration of our request.

Sincerely,

Curtis R. Finch

Curtis R. Finch
Project Director and Chairman
General Vocational and Technical Education

Enclosure

rh

APPENDIX B

OTHER COMPETENCIES IDENTIFIED AS BEING IMPORTANT TO VOCATIONAL ADMINISTRATORS

OTHER COMPETENCIES DETERMINED IMPORTANT TO VOCATIONAL ADMINISTRATORS

3. Interpret vocational programs to parents and others in the community.

71. Provide vocational education opportunities for students from all backgrounds.

68. Articulate program offerings between vocational and feeder schools.

61. Establish and maintain rapport with faculty from various vocational service areas (i.e., Agriculture, Business, Home Economics, Health, Distributive, Trade and Industrial Education, etc.).

50. Determine equipment needed to carry on effective vocational programs.

80. Establish and maintain advisory committees.

53. Check for possible hazards to pupil safety.

51. Determine operating supplies needed to carry on effective vocational programs.

32. Conduct classroom and laboratory observations of teachers.

84. Analyze and assign priorities to program expenditures.

16. Work with state agencies in the development and operation of vocational education programs.

44. Locate community resources which will aid in program improvements.

78. Provide for mutual attainment of staff and organizational goals.

39. Cooperate with community organizations and agencies.

48. Prepare promotional materials to explain vocational education to the public.

28. Provide communication channels for the sharing of ideas and information among teachers.

82. Coordinate adult vocational education programs.

43. Effect fiscal operating controls over school expenditures.

27. Prepare reports for the higher administration.

15. Work with county and/or city agencies in developing and operating vocational education programs.

76. Assist teacher-coordinators in establishing and improving cooperative vocational education.

32. Conduct classroom and laboratory observations of teachers.

57. Work closely with the school board to maintain high quality vocational programs.

73. Articulate secondary and post-secondary vocational education program objectives.

34. Recommend persons for teaching positions.

60. Defend appropriations for vocational education from a philosophical base.

86. Coordinate the modification and rennovation of existing facilities.

8. Evaluate and recommend teachers for promotion, retention, and termination.

33. Interview teacher candidates.

47. Prepare communication releases for mass media.

49. Analyze student achievement patterns.

56. Report vocational education concerns to school board members.

9. Attend professional meetings.

26. Determine staff assignments.

64. Assume legal responsibility for planning and maintaining safe facilities.

23. Interpret vocational education legislation to other school administrators.

62. Critically examine points of view opposing your professional interests.

77. Represent teachers' interests to superiors within the school/district/county.

75. Participate in community, civic and volunteer activities.

55. Promote vocational education financing through participation at school board meetings.

2. Prepare administrative bulletins directed to the staff.

72. Synthesize current research information from sessions at professional conferences.

13. Provide assistance in writing proposals for state and federal funding of projects and programs.

83. Articulate vocational program offerings with those of CETA, OIC, and other training agencies.

35. Deal with disagreements among teachers.

17. Work with federal agencies in the development and operation of vocational education programs.

APPENDIX C

RATINGS OF INSTRUMENT ITEMS WITH MEANS ABOVE 2.75

MEAN ITEM SCORES ABOVE 2.75

Item No.	Vocational Administrators		Superintendents		Total	
	Need	Importance	Need	Importance	Need	Importance
1	2.871	3.699	2.982	3.789	2.913	3.733
2		3.065		2.965		3.029
3	(2.602)	3.688	2.825	3.737	(2.687)	3.707
4						
5	3.290	3.753	3.281	3.649	3.287	3.713
6	2.763	3.237	3.053	3.368	2.873	3.287
7	2.796	3.452	3.018	3.491	2.880	3.467
8		3.258		3.211		3.240
9		3.237		3.035		3.160
10	3.011	3.366	3.035	3.614	3.020	3.460
11	3.011	3.258	3.035	3.456	3.020	3.333
12	2.860	3.140	2.912	3.211	2.880	3.167
13		2.978		2.965		2.973
14						
15	(2.699)	3.312	2.807	3.368	(2.740)	3.333
16		3.312		3.596		3.420
17		2.774		2.930		2.833
18	2.892	3.409	2.789	3.351	2.853	3.387
19	2.989	3.599	3.140	3.754	3.047	3.633
20	2.957	3.495	3.123	3.596	3.020	3.533
21	2.753	3.301	2.895	3.333	2.807	3.130
22	(2.680)	3.387	2.842	3.632	(2.581)	3.480

MEAN ITEM SCORES ABOVE 2.75 (Continued)

Item No.	Vocational Administrators		Superintendents		Total	
	Need	Importance	Need	Importance	Need	Importance
23		3.161		3.070		3.127
24						
25						
26		3.172		3.070		3.133
27		3.290		3.421		3.340
28		3.366		3.368		3.367
29						
30	2.849	3.527	3.158	3.719	2.967	3.600
31	2.710	3.538	2.930	3.421	2.793	3.493
32		3.366		3.211		3.307
33		3.269		3.175		3.233
34		3.312		3.246		3.287
35		2.968		2.825		2.913
36						
37						
38	2.785	3.215	2.930	3.246	2.840	3.227
39	(2.387)	3.280	2.789	3.561	2.540	3.387
40						
41						
42	2.860	3.559	3.000	3.579	2.913	3.567
43	(2.731)	3.419	2.772	3.246	(2.747)	3.353
44	(2.710)	3.333	2.807	3.561	(2.747)	3.420

MEAN ITEM SCORES ABOVE 2.75 (Continued)

Item No.	Vocational Administrators		Superintendents		Total	
	Need	Importance	Need	Importance	Need	Importance
45	2.860	3.495	2.895	3.526	2.873	3.507
46	3.000	3.280	3.175	3.386	3.067	3.320
47		3.258		3.105		3.200
48		3.398		3.368		3.387
49	(2.688)	3.410	2.912	3.263	2.773	3.187
50		3.538		3.544		3.540
51		3.495		3.509		3.500
52						
53	(2.667)	3.495	2.772	3.544	2.707	3.513
54	3.151	3.142	3.368	3.877	3.233	3.793
55		3.194		2.877		3.073
56		3.312		2.982		3.187
57		3.473		3.035		3.307
58	2.968	3.634	3.088	3.632	3.013	3.633
59	2.860	3.538	3.035	3.579	2.927	3.553
60		3.290		3.193		3.253
61		3.527		3.667		3.580
62		3.183		3.035		3.127
63	2.871	3.409	2.930	3.491	2.893	3.440
64	2.753	3.204	(2.684)	3.018	(2.727)	3.133
65	2.785	3.215	2.842	3.316	2.807	3.253
66	2.817	3.376	2.789	3.368	2.807	3.373

MEAN ITEM SCORES ABOVE 2.75 (Continued)

Item No.	Vocational Administrators		Superintendents		Total	
	Need	Importance	Need	Importance	Need	Importance
67	2.774	3.452	3.000	3.368	2.860	3.420
68	(2.742)	3.591	2.842	3.614	2.780	3.600
69	2.860	3.591	2.930	3.526	2.887	3.567
70						
71	(2.720)	3.645	2.807	3.614	2.753	3.633
72		3.022		3.018		3.020
73	(2.645)	3.290	2.877	3.333	(2.733)	3.307
74	2.914	3.484	3.035	3.586	2.960	3.447
75		3.086		3.088		3.087
76	(2.613)	3.247	2.807	3.456	(2.687)	3.327
77		3.215		2.930		3.107
78	(2.538)	3.376	2.754	3.456	(2.620)	3.407
79	2.849	3.548	2.825	3.579	2.840	3.560
80		3.570		3.491		3.540
81	3.054	3.570	3.193	3.649	3.107	3.600
82		3.355		3.368		3.360
83		2.796		3.140		2.927
84		3.409		3.579		3.473
85		3.323		3.281		3.307
86		3.237		3.281		3.253
87	2.806	3.387	2.877	3.439	2.833	3.407

APPENDIX D

MODULE DESCRIPTIONS

MODULE DESCRIPTIONS

The six modules produced as a part of this curriculum development effort include Motivating Vocational Education Personnel to Their Optimum Growth Potential, Implementing Competency-Based Instruction in Vocational Education, Planning Vocational Education Programs for the Disadvantaged and Handicapped, Formulating Goals and Objectives for Vocational Education Programs, Organizing and Conducting Staff Development Activities for Vocational Teachers, and Preparing Local Plans for Administering Vocational Education. Each of these modules is described briefly below.

Motivating Vocational Education Personnel to Their Optimum Growth Potential

The learning experiences in this module are designed to acquain[illegible]e student with the basic underlying theories of motivation and to provide insight into various methods of applying these theories to motivate school personnel. Four objectives comprise the learning package:

> Terminal Objective: In a real or simulated school situation (e.g., area vocational school or comprehensive high school) develop a written plan for motivating personnel. This plan will include office personnel and teachers from all service areas.
>
> Enabling Objective #1: Demonstrate knowledge and understanding of theories for human motivation which are useful for managers, administrators, and supervisors who operate within the formal organization.
>
> Enabling Objective #2: Identify methods which could be considered by administrators for improving motivation among personnel.
>
> Enabling Objective #3: Based on a case study situation, prepare a written analysis by explaining what

motivational factors existed, the primary problems presented by the situation, causes of the problems, and corrective measures which could have been taken to prevent the problems. Use your knowledge of motivational theory and methodology as a guide in preparing your analysis.

Implementing Competency-Based Instruction in Vocational Education

The learning experiences in this module are designed to help the learner develop skills in implementing CBI. The learner is provided an opportunity to develop expertise in areas such as orienting teachers to their new roles in competency-based instruction and developing CBI implementation plans. The module includes five objectives:

Terminal Objective: Plan strategies to implement instruction which focuses directly on developing those tasks, skills, attitudes, values, and appreciations that are deemed critical for successful employment (competency-based instruction).

Enabling Objective #1: Demonstrate knowledge of the rationale for implementing competency-based instruction in vocational-technical schools.

Enabling Objective #2: Identify administrative concerns in implementing competency-based instruction in vocational-technical education.

Enabling Objective #3: Demonstrate knowledge of the procedure used to identify occupational objectives; the various ways teachers can use the occupational objectives; and implications for administration, such as course credit and graduation credit, and occupational certification.

Enabling Objective #4: Prepare a written plan for implementing key aspects of competency-based instruction (CBI) in a vocational program.

Planning Vocational Education Programs for Disadvantaged and Handicapped Students

Procedures for planning and implementing vocational programs for disadvantaged and handicapped persons are covered by asking the learner to accomplish seven objectives:

Terminal Objective: Based upon a real or simulated situation, develop a written plan for a vocational program to serve disadvantaged and/or handicapped students.

Enabling Objective #1: Demonstrate an understanding of federal legislation and funding sources related to handicapped and disadvantaged students in vocational education.

Enabling Objective #2: Determine the need for vocational programs that serve local disadvantaged student populations (i.e., characteristics of the population; employment opportunities; social, psychological, and legal considerations; etc.).

Enabling Objective #3: Determine the need for vocational programs that serve local handicapped student populations (i.e., characteristics of the population; employment opportunities; social, psychological, and legal considerations; etc.).

Enabling Objective #4: Establish policies and procedures which facilitate offering vocational education and related services to disadvantaged and handicapped students.

Enabling Objective #5: Determine resource requirements for providing instruction to disadvantaged and handicapped students (i.e., facilities, equipment, materials, and support personnel, etc.).

Enabling Objective #6: Develop a timetable for implementing programs and services for special needs students.

Formulating Goals and Objectives for Vocational Education Programs

Content of this module focuses on assisting the vocational administrator in becoming involved in that phase of goal development

which aligns state and national educational standards with local concerns. The process of goal development is the basis for the seven module objectives:

Terminal Objective: Facilitate the development of program goals, instructional objectives, and criterion measures for vocational education programs.

Enabling Objective #1: Identify outside resources (i.e., community occupational competencies and entry standards, community needs assessment, advisory committee, consultants, brochures, and course outlines from other schools) needed to develop program goals and objectives to support desired program outcomes.

Enabling Objective #2: Demonstrate knowledge of educational standards for vocational school programs (i.e., Standards of Quality and State Plan for Vocational Education) and concerns for facilitating development of goals and objectives for vocational programs.

Enabling Objective #3: In writing, explain strategies involving staff in development of goals and objectives. Take into account unique characteristics of subgroups.

Enabling Objective #4: Determine whether the provided set of goals and objectives for a specific vocational program meet State Department requirements for the program identifying any required areas where goals and objectives appear deficient.

Enabling Objective #5: Determine alignment of the goals and objectives revised in Learning Experience IV with local concerns compiled from a community occupational survey, advisory committee minutes, and a consultant's report. Include instructions for revision of the goals and objectives by the appropriate vocational teachers.

Enabling Objective #6: Analyze appropriate kinds of criterion measures to be used by staff in evaluating achievement of given sets of program goals and instructional objectives.

Organizing and Conducting Staff Development Activities for Vocational Teachers

The learning experiences included in this module are designed to assist the vocational leader in developing the necessary skills to administer a quality staff development program. Emphasis is placed on four skills related to meeting teachers' in-service needs: identification, organization, program implementation, and program evaluation. The module contains four objectives:

Terminal Objective: Prepare a staff development plan for the vocational staff of your school division.

Enabling Objective #1: Demonstrate knowledge of the administrator's role in staff development.

Enabling Objective #2: Develop a needs assessment and implementation strategy which will identify priorities, and then satisfy staff in-service requirements.

Enabling Objective #3: Develop a strategy for evaluating the extent to which staff development needs have been met.

Preparing Local Plans for Administering Vocational Education Programs

Program planning is the focus of this module. Both state and local level planning processes are reviewed to help the learner improve skills in this area. This module includes four objectives:

Terminal Objective: Given a set of hypothetical demographic data on vocational education at the state and local level, demonstrate your ability to develop a one-year plan for vocational education.

Enabling Objective #1: Demonstrate knowledge and understanding of the importance and need for planning local programs of vocational education.

Enabling Objective #2: Demonstrate knowledge and understanding of planning as a systematic process with ability to identify the major parts of a local plan and explain their functions.

Enabling Objective #3: Demonstrate the ability to criticize a local plan for vocational education.

APPENDIX E

SUMMARY OF TEST RESULTS

TEST SUMMARY

Module Title: Motivating Vocational Education Personnel to Their Optimum Growth Potential

Date Administered: May 25, 1976 Location: Reston

Students:

1	5	0	3	5
Pre-service teacher	In-service teacher	Currently a voc. administrator	No response	Aspires to be a voc. administrator

Total Number of Participants: 9

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module	9.55	N.A.
2.	Assistance needed from resource person to complete module.	3.88	very little
5.	Module kept you informed as to your progress throughout.	2.55	not sure
6.	Resources on module content supplied good information.	2.22	yes
7.	Learning experience objectives are clearly stated.	1.77	yes
8.	Module is well written and easy to understand.	1.77	yes
9.	Format is well organized.	1.66	yes
10.	Directions on how to use module easily understood.	1.66	yes
11.	Learning experiences were clear, easy to follow.	1.66	yes
12.	Module requires reasonable amount of time considering what is to be learned.	2.37	yes
13.	Module introduction clearly explains purpose of module.	1.66	yes
14.	Module provides an efficient method of achieving the terminal objective.	2.75	not sure
15.	Parts of module are consistent with each other.	2.22	yes
16.	Consistent terminology is used through module.	1.88	yes

		$\bar{x}$	Closest Response
17.	Each learning experience is logically related to previous ones.	2.00	yes
18.	Learning experiences helped achieve objectives.	1.88	yes
19.	Resource materials helped achieve objectives.	2.25	yes
20.	Module contains only necessary material.	2.22	yes
21.	Learning experiences are realistic to complete.	2.00	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	2.22	yes
23.	Module information is useful for professional development.	2.00	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	3.77	no
25.	Using this module is more enjoyable than conventional methods.	2.77	not sure
26.	Using this module is enjoyable.	2.55	yes/not sure

TEST SUMMARY

Module Title: Implementing Competency-Based Instruction in Vocational Education

Date Administered: June 2, 1976 Location: Blacksburg

Students: 1 Pre-service teacher; 4 In-service teacher; 1 Currently a voc. administrator; 2 No Response; 1 Aspires to be a voc. administrator

Total Number of Participants: 8

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module.	15.12	N.A.
4.	Assistance needed from resource person to complete module.	3.12	a little
5.	Module kept you informed as to your progress throughout.	2.37	yes
6.	Resources on module content supplied good information.	2.87	not sure
7.	Learning experience objectives are clearly stated.	1.75	yes
8.	Module is well written and easy to understand.	2.00	yes
9.	Format is well organized.	2.37	yes
10.	Directions on how to use module easily understood.	2.25	yes
11.	Learning experiences were clear, easy to follow.	2.62	not sure
12.	Module requires reasonable amount of time considering what is to be learned.	2.25	yes
13.	Module introduction clearly explains purpose of module.	1.62	yes
14.	Module provides an efficient method of achieving the terminal objective.	2.37	yes
15.	Parts of module are consistent with each other	1.87	yes
16.	Consistent terminology is used through module.	1.75	yes
17.	Each learning experience is logically related to previous ones.	2.37	yes

		$\bar{x}$	Closest Response
18.	Learning experiences helped achieve objectives.	2.00	yes
19.	Resource materials helped achieve objectives.	2.62	not sure
20.	Module contains only necessary material.	2.25	yes
21.	Learning experiences are realistic to complete.	2.87	not sure
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	3.00	not sure
23.	Module information is useful for professional development.	1.87	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	4.00	no
25.	Using this module is more enjoyable than conventional methods.	3.125	not sure
26.	Using this module is enjoyable.	3.25	not sure

TEST SUMMARY

Module Title: Implementing Competency-Based Instruction in Vocational Education

Date Administered: June 30, 1976 Location: Norfolk, Summer I

Students:

0	14	2	1	3
Pre-service teacher	In-service teacher	Currently a voc. administrator	No response	Aspires to be a voc. administrator

Total Number of Participants: 17

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module	16.53	N.A.
4.	Assistance needed from resource person to complete module.	2.29	yes
5.	Module kept you informed as to your progress throughout.	2.47	yes
6.	Resources on module content supplied good information.	2.35	yes
7.	Learning experience objectives are clearly stated.	1.41	yes
8.	Module is well written and easy to understand.	1.94	yes
9.	Format is well organized.	1.82	yes
10.	Directions on how to use module easily understood.	2.17	yes
11.	Learning experiences were clear, easy to follow.	2.11	yes
12.	Module requires reasonable amount of time considering what is to be learned.	1.76	yes
13.	Module introduction clearly explains purpose of module.	1.65	yes
14.	Module provides an efficient method of achieving the terminal objective.	2.41	yes
15.	Parts of module are consistent with each other	2.00	yes
16.	Consistent terminology is used throughout module.	1.59	yes
17.	Each learning experience is logically related to previous ones.	2.18	yes

		$\bar{x}$	Closest Response
18.	Learning experiences helped achieve objectives.	2.00	yes
19.	Resource materials helped achieve objectives.	2.24	yes
20.	Module contains only necessary material.	2.00	yes
21.	Learning experiences are realistic to complete	2.06	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	2.41	yes
23.	Module information is useful for professional development.	1.82	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	4.17	no
25.	Using this module is more enjoyable than conventional methods.	2.69	not sure
26.	Using this module is enjoyable.	2.50	yes

TEST SUMMARY

Module Title: Planning Vocational Education Programs for the Disadvantaged and Handicapped

Date Administered: November 16, 1976 Location: Reston

Students:

0	0	7	0
Pre-service teacher	In-service teacher	Currently a voc. administrator	Aspires to be a voc. administrator

Total Number of Participants: 7

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module.	6.66	N.A.
4.	Assistance needed from resource person to complete module.	4.22	very little
5.	Module kept you informed as to your progress throughout.	1.87	yes
6.	Resources on module content supplied good information.	1.78	yes
7.	Learning experience objectives are clearly stated.	1.44	definitely yes
8.	Module is well written and easy to understand.	1.33	definitely yes
9.	Format is well organized.	1.33	definitely yes
10.	Directions on how to use module easily understood.	1.44	definitely yes
11.	Learning experiences were clear, easy to follow.	1.56	yes
12.	Module requires reasonable amount of time considering what is to be learned.	2.22	yes
13.	Module introduction clearly explains purpose of module.	1.78	yes
14.	Module provides an efficient method of achieving the terminal objective.	1.78	yes
15.	Parts of module are consistent with each other.	1.44	definitely yes
16.	Consistent terminology is used through module.	1.56	yes

		$\bar{x}$	Closest Response
17.	Each learning experience is logically related to previous ones.	1.44	yes
18.	Learning experiences helped achieve objectives.	1.67	yes
19.	Resource materials helped achieve objectives.	2.11	yes
20.	Module contains only necessary material.	2.00	yes
21.	Learning experiences are realistic to complete.	2.25	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	2.44	yes
23.	Module information is useful for professional development.	1.67	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	4.22	no
25.	Using this module is more enjoyable than conventional methods.	2.11	yes
26.	Using this module is enjoyable.	1.67	yes

TEST SUMMARY

Module Title: Formulating Goals and Objectives for Vocational Education Programs

Date Administered: August 23, 1976 Location: Blacksburg

Students:	0	3	1	1
	Pre-service teacher	In-service teacher	Currently a voc. administrator	No response

1
Aspires to be a voc. administrator

Total Number of Participants: 5

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module.	11.2	N.A.
4.	Assistance needed from resource person to complete module.	4.00	very little
5.	Module kept you informed as to your progress throughout.	4.00	very little
6.	Resources on module content supplied good information.	3.00	not sure
7.	Learning experience objectives are clearly stated.	2.60	not sure
8.	Module is well written and easy to understand.	3.40	not sure
9.	Format is well organized.	2.40	yes
10.	Directions on how to use module easily understood.	2.80	not sure
11.	Learning experiences were clear, easy to follow.	2.60	not sure
12.	Module requires reasonable amount of time considering what is to be learned.	1.80	yes
13.	Module introduction clearly explains purpose of module.	2.40	yes
14.	Module provides an efficient method of achieving the terminal objective.	2.60	not sure
15.	Parts of module are consistent with each other.	2.60	not sure
16.	Consistent terminology is used through module.	1.60	yes

		$\bar{x}$	Closest Response
17.	Each learning experience is logically related to previous learning experience	2.60	not sure
18.	Learning experiences helped achieve objectives.	1.60	yes
19.	Resource materials helped achieve objectives.	2.60	not sure
20.	Module contains only necessary material.	3.20	not sure
21.	Learning experiences are realistic to complete.	2.40	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	3.40	not sure
23.	Module information is useful for professional development.	1.60	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	3.80	no
25.	Using this module is more enjoyable than conventional methods.	2.40	yes
26.	Using this module is enjoyable.	3.00	not sure

TEST SUMMARY

Module Title: Formulating Goals and Objectives for Vocational Education Programs

Date Administered: November 8, 1976 Location: Blacksburg

Students: 0 Pre-service teacher; 2 In-service teacher; 1 Currently a voc. administrator; 3 No response /

3 Aspires to be a voc. administrator

Total Number of Participants: 6

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module.	8.17	N.A.
4.	Assistance needed from resource person to complete module.	4.00	very little
5.	Module kept you informed as to your progress throughout.	2.00	yes
6.	Resources on module content supplied good information.	2.33	yes
7.	Learning experience objectives are clearly stated.	1.67	yes
8.	Module is well written and easy to understand.	2.00	yes
9.	Format is well organized.	2.00	yes
10.	Directions on how to use module easily understood.	2.33	yes
11.	Learning experiences were clear, easy to follow.	2.17	yes
12.	Module requires reasonable amount of time considering what is to be learned.	1.83	yes
13.	Module introduction clearly explains purpose of module.	2.16	yes
14.	Module provides an efficient method of achieving the terminal objective.	2.00	yes
15.	Parts of module are consistent with each other.	1.67	yes
16.	Consistent terminology is used through module.	1.83	yes

		$\bar{x}$	Closest Response
17.	Each learning experience is logically related to previous ones.	1.50	definitely yes/ yes
18.	Learning experiences helped achieve objectives.	2.17	yes
19.	Resource materials helped achieve objectives.	2.00	yes
20.	Module contains only necessary material.	1.83	yes
21.	Learning experiences are realistic to complete.	1.83	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	2.33	yes
23.	Module information is useful for professional development.	1.83	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	3.83	no
25.	Using this module is more enjoyable than conventional methods.	2.17	yes
26.	Using this module is enjoyable.	2.00	yes

TEST SUMMARY

Module Title: Organizing and Conducting Staff Development Activities for Vocational Teachers

Date Administered: November 12, 1976 Location: Blacksburg

Students: 0 Pre-service teacher; 6 In-service teacher; 1 Currently a voc. administrator; 6 Aspires to be a voc. administrator

Total Number of Participants: 7

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module.	3.1	N.A.
4.	Assistance needed from resource person to complete module.	3.80	very little
5.	Module kept you informed as to your progress throughout.	2.57	not sure
6.	Resources on module content supplied good information.	3.29	not sure
7.	Learning experience objectives are clearly stated.	1.71	yes
8.	Module is well written and easy to understand.	1.86	yes
9.	Format is well organized.	1.86	yes
10.	Directions on how to use module easily understood.	2.00	yes
11.	Learning experiences were clear, easy to follow.	2.00	yes
12.	Module requires reasonable amount of time considering what is to be learned.	1.86	yes
13.	Module introduction clearly explains purpose of module.	2.00	yes
14.	Module provides an efficient method of achieving the terminal objective.	2.29	yes
15.	Parts of module are consistent with each other.	2.00	yes

		$\bar{x}$	Closest Response
16.	Consistent terminology is used through module.	2.00	yes
17.	Each learning experience is logically related to previous ones.	2.00	yes
18.	Learning experiences helped achieve objectives.	2.14	yes
19.	Resource materials helped achieve objectives.	2.20	yes
20.	Module contains only necessary material.	2.29	yes
21.	Learning experiences are realistic to complete.	1.86	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	2.00	yes
23.	Module information is useful for professional development.	1.43	definitely yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	3.71	no
25.	Using this module is more enjoyable than conventional methods.	1.86	yes
26.	Using this module is enjoyable.	1.80	yes

TEST SUMMARY

Module Title: Preparing Local Plans for Administering Vocational Education

Date Administered: September 21, 1976 Location: Blacksburg

Students:

0	0	7	0
Pre-service teacher	In-service teacher	Currently a voc. administrator	Aspires to be a voc. administrator

Total Number of Participants: 7

		$\bar{x}$	Closest Response
1.	Approximate hours spent completing module.	3.86	N.A.
4.	Assistance needed from resource person to complete module.	4.67	none
5.	Module kept you informed as to your progress throughout.	1.83	yes
6.	Resources on module content supplied good information.	1.57	yes
7.	Learning experience objectives are clearly stated.	1.57	yes
8.	Module is well written and easy to understand.	1.71	yes
9.	Format is well organized.	1.86	yes
10.	Directions on how to use module easily understood.	1.57	yes
11.	Learning experiences were clear, easy to follow.	1.71	yes
12.	Module requires reasonable amount of time considering what is to be learned.	1.71	yes
13.	Module introduction clearly explains purpose of module.	1.71	yes
14.	Module provides an efficient method of achieving the terminal objective.	1.86	yes
15.	Parts of module are consistent with each other	1.57	yes
16.	Consistent terminology is used through module.	1.71	yes
17.	Each learning experience is logically related to previous ones.	1.86	yes

		$\bar{x}$	Closest Response
18.	Learning experiences helped achieve objectives.	1.71	yes
19.	Resource materials helped achieve objectives.	1.71	yes
20.	Module contains only necessary material.	2.14	yes
21.	Learning experiences are realistic to complete	1.71	yes
22.	Only a reasonable amount of prior knowledge needed to perform learning experiences.	2.00	yes
23.	Module information is useful for professional development.	1.57	yes
24.	Module contains flagrant bias (e.g., economic, ethnic, racial, sexual, or cultural bias).	4.14	no
25.	Using this module is more enjoyable than conventional methods.	2.43	yes
26.	Using this module is enjoyable.	1.87	yes

APPENDIX F

THIRD PARTY EVALUATION REPORT

THIRD-PARTY EVALUATION

Of Project

TO DEVELOP COMPETENCY-BASED TRAINING MATERIALS

TO MEET THE IN-SERVICE NEEDS

OF LOCAL VOCATIONAL ADMINISTRATORS

Project Director: Curtis R. Finch
Division of Vocational and Technical Education
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

Evaluators:
B. E. Childers, Executive Secretary, Commission on Occupational Education Institutions, Southern Association of Colleges and Schools

Ralph C. Wenrich, Professor, The University of Michigan

December, 19..

Introduction

The project to develop competency-based training materials to meet the in-service needs of local vocational administrators was well-conceived and carefully executed. The goals and objectives for the project were clearly stated and delineated in four achievable phases. An apparent problem area does exist, however; there was not enough funding or time provided for an effective follow-up and feedback to validate the materials developed. The staff recognizes this deficiency but believes, and we concur, that the materials as produced are useable.

It would be highly desirable to follow up this project with an extensive field-testing program and feedback for adequate validation. The existing data on the limited feedback show wide variation between class groups. Only through a statistically valid sampling can these variances be affirmed. Furthermore, the sample should consist of practicing administrators.

The project elected to use the identified top-priority areas for module development but excluded two areas because of parallel development in other projects. This concept is highly laudable but because of a lack of coordination, there is no assurance that the same techniques, sampling devices, or production system will provide parallel materials. Some further funding is needed to assure compatibility of the materials that will be available as a result of this and other similar projects.

There is a need of further refinement of the six modules developed at VPI & SU for consistency of approach and materials support Specific recommendations are made in the report which follows.

Overall, the project has met the requisites of the stated goals and laudable products are the result.

This report is organized on the basis of the four major project objectives:

1. Assessment of needs.
2. Development of training materials.
3. Development of training material user's guide.
4. Evaluating the materials and guide.

Assessment of Needs

The first objective was to conduct as assessment of the professional needs of local-level vocational administrators in Virginia. This was done by asking local vocational administrators to react to a list of 87 tasks, in terms of (1) how important each item was and (2) the extent to which they felt a need for in-service training in reference to each item. Superintendents who supervise the work of local vocational administrators in Virginia were also asked to respond to the same 87 tasks as to how important they thought each item was and their perceptions of administrator in-service needs. For a task to be included as a competency needed by vocational administrators it had to have a 2.75 rating or higher by both groups. Unfortunately, separate data for superintendents' ratings were not available so that they might be compared with vocational administrators' ratings.

This is a fairly straightforward method of assessing needs, but it has some serious weaknesses. It tends to overlook those deficiencies of practitioners of which they themselves are not aware; it also tends to maintain the status quo of a practice or profession. This may account for the fact that the need for in-service in areas such as community involvement, curriculum development, organizational effectiveness and leadership were rated low or not included. Also, in this instance, there is a further limitation in that the survey was made of practitioners in Virginia only. It cannot be assumed that practices are the same in all states or that practitioners in other states would perceive the same needs as do those in Virginia.

Recommendations

1. That data gathered from superintendents be separated from that provided by vocational administrators to determine variance.

2. That expert opinions be used, in addition to the perceived needs of practitioners, in assessing in-service training needs, if further work is done in this area.

Development of Training Materials

The project staff was effective in developing six (6) modules which have a common format and are based upon the results of the needs assessment, with perhaps two exceptions--curriculum design and organization and evaluation of instructional programs. It is understood that these areas were considered less important to this project, since materials in these areas are being developed in

other similar projects. The use of existing instructional materials, as well as the anticipated use of materials being developed elsewhere through similar projects, is commendable. The color-coding of pages in the modules was found helpful. Excellent use was made of simulation materials.

The reactions of students who used the modules were varied and the number of responses limited, but clarification of portions of the modules seems necessary. Furthermore, the approach used in the modules is not consistent; this may be a function of having different authors for each module. For example, some modules have extensive lists of references, while others have none; at least one module makes use of audiovisual materials, but most of them do not; similarly, simulation materials and other teaching/learning techniques. Some learning experiences (enabling objectives) have less than half a page of new information; others have many pages.

Some of the modules are too broad and therefore involve too much new content (motivating personnel, for example), while other modules are more restrictive than necessary (planning vocational education programs for the disadvantaged and handicapped, for example). Planning vocational education programs (in general) would make a better unit, with emphasis on the fact that in planning any vocational program, the characteristics of the population to be served must be considered; the characteristics of handicapped and disadvantaged should be identified and provisions made for dealing with their unique problems.

Recommendations

1. That all modules be critically reviewed by one person (or a small team) with a view toward greater consistency in instructional techniques and materials used.

2. That an annotated bibliography be included in each module.

3. That the reading level of the modules be checked against students' reading ability.

4. That simulation and other materials be used which are less provincial. (This is especially important if the modules are to be used outside the Commonwealth of Virginia.)

5. That duplication of materials in several modules be eliminated or at least cross-referenced; for example, the module on "Preparing Local Plans" deals with goal statements and the writing of objectives,

but makes no reference to the module on "Formulating Goals and Objectives. . ." which deals with these concepts in detail.

Development of Training Material User's Guide

The User's Guide is to be used to inform teacher educators (and possibly other instructors) as to the nature of the training materials and how they might be used. It includes an excellent explanation of CBE and CBAE. It also makes effective use of charts.

The User's Guide is designed to enhance transportability of the materials. Because the assessment of needs was limited to administrators in Virginia and since much of the teaching/learning materials used in the modules are taken from practices and situations in Virginia, the transportability would seem to be limited to potential users in that state.

It these materials are to be used on an individual basis by local schools (in other than a university course setting), the User's Guide should deal more specifically with such use.

Since each of the two consultants involved in the Third-Party Evaluation has made marginal comments on copies of the User's Guide and returned these marked copies to the Project Director, the suggestions made in that form will not be repeated here.

Recommendations

1. That the guide be reduced in size to perhaps 10 or 12 pages by eliminating extraneous content. For example, instead of devoting many pages to a discussion of CBE, the reader might be referred to the module on "Implementing Competency Based Instruction."

2. That a thorough rewrite of the User's Guide be done with consideration given to the following:

   a. Greatly reducing the volume.
   b. Including definitions of terms used.
   c. Making statements more positive by eliminating "may" and "might."
   d. Striving for a greater degree of clarity as well as brevity.

Evaluating the Materials and Guide

The final phase of the project involved getting feedback regarding the usability and acceptability of the materials and guide on the basis of which appropriate revisions are to be made. The only "feedback" on the User's Guide was that given by the third-party evaluators on marked copies of the guide and summarized in the preceding section of this report.

The six (6) modules were field-tested and evaluated by both students and faculty using instruments developed for this purpose. The excellent design for field-testing which the staff had planned could be carried out only in a very limited way because of time and budget. Two modules were pilot-tested by two groups (classes), and the other four modules were each pilot-tested by one group of students. A total of sixty-six students were involved in the testing but there were only fifteen (15) students in the population sampled who were employed as vocational administrators at the time they were students. Unfortunately, the reactions of students who were administrators at the time they were exposed to the modules could not be separated from the reactions of other students in the population. Valid conclusions cannot be drawn from this small sample of student reactions. Furthermore, all the field-testing was done by faculty at VPI & SU, some of whom were directly involved in the development of the materials; it was intended to have other university faculty members field-test the modules, but this was not possible for reasons stated earlier. It should be pointed out also that the modules were field-tested only in situations in which traditional grading practices are followed.

Recommendations

1. That more substantial and long-range field-testing be done on the use of both the Guide and the modules.

2. That rating scales on instruments used to get student and faculty reactions be revised so that some items are not scored in reverse on the 1-5 scale.

3. That an analysis be made of the product of other CBAE projects for purposes of comparison and integration or articulation.

General Comments and Conclusions

This is a well-designed project with goals and objectives clearly stated and procedures succintly delineated. It deals with an area in which there is a need for instructional materials, although there is some doubt about the appropriateness of

competency-based programs for the in-service training of local vocational administrators. (See UCEA Review, Vol. XVI No. 1, September 1974.) Also, the assumption that modularized instruction is the best way to package materials for the in-service training of local vocational administrators might be questioned.

Obviously, the field-testing of the product--user's guide and modules--could not be accomplished in a satisfactory manner in view of time and fiscal constraints.

The lack of coordination of this project with similar projects supported by the same agency is a matter of concern. The staff working on this project did what they could to learn about other activities in this area and to share with others information about their efforts. As a matter of policy, it would seem better for the sponsor of an activity such as this to go with one institution with adequate funding over a longer period of time rather than to have several different institutions work on the same problem simultaneously, with only voluntary coordination and cooperation.